RPDP Middle School Science Certificate Program (MSSCP)

This 16-credit program consists of courses designed to provide teachers with the science content and instructional strategies to facilitate their success as middle school science teachers. It addresses major topics in the middle school curriculum and gives teachers multiple perspectives on teaching students who take the corresponding course. Each course includes modeling *The Components of an Effective Lesson*, *Teacher Expectancies*, linking to high school and middle school science courses, connecting to other disciplines, and practicing hands-on, inquiry-based activities, interactive learning, and participation in a balanced delivery of instruction.

Middle School Science Certificate Program		
Course Name	***Course Coding***	***Credits***
RPDP MSSCP Lab and Process	SCI 630 A	1
RPDP MSSCP Life Science for MS Teachers (Sem 1)	SCI 630 B	3
RPDP MSSCP Life Science for MS Teachers (Sem 2)	SCI 630 C	3
RPDP MSSCP Physical Science for MS Teachers (Sem 1)	SCI 630 D	3
RPDP MSSCP Physical Science for MS Teachers (Sem 2)	SCI 630 E	3
RPDP MSSCP Earth Science for MS Teachers (Sem 1)	SCI 630 F	3
RPDP MSSCP Earth Science for MS Teachers (Sem 2)	SCI 630 G	3
	Total Credits for MSSCP	**16**

Choose any 5 of these 6 three-credit classes

REQUIRED COURSE:

RPDP MSSCP LABORATORY AND PROCESS SKILLS (1 CREDIT)

This one-credit course addresses the Nevada Scientific Inquiry Standards and the skills and processes needed by middle school science teachers for organizing and maintaining an effective and safe laboratory environment. Strategies for teaching students to collect, record, and evaluate data obtained in laboratory investigations will be emphasized.

UNLV: Lab and Process SCI 630 A

ELECTIVE COURSES: CHOOSE ANY FIVE (5) OF THE FOLLOWING SIX (6) THREE-CREDIT CLASSES

RPDP MSSCP LIFE SCIENCE FOR MS TEACHERS (SEM 1) (3 CREDITS)

This three-credit course will follow the first semester benchmark sequence for the currently adopted Clark County School District course syllabus for Science 6 with supplements from the NV Science Content Standards. This semester course focuses on understanding the living systems on Earth. Teachers will use scientific processes, including inquiry, to build understandings of the interactions between living and non-living things. Major topics include; Science Processes and Skills, Structure of Life, Microbes, and Cells.
UNLV: Life Science 1A, SCI630 B

RPDP MSSCP LIFE SCIENCE FOR MS TEACHERS (SEM 2) (3 CREDITS)

This three-credit course follows the second semester benchmark sequence for the currently adopted Clark County School District course syllabus for Science 6 with supplements from the NV Science Content Standards. Teachers will participate in an activity-oriented course, which utilizes a variety of teaching strategies including cooperative learning, the writing process, vocabulary building, use of technology, and interdisciplinary instruction. Major topics include; Cells, Genetics, Classification, Environment, and Evolution.
UNLV: Life Science IB, SCI 630 C

RPDP MSSCP PHYSICAL SCIENCE FOR MS TEACHERS (SEM 1) (3 CREDITS)

This three-credit course will follow the first semester benchmark sequence for the currently adopted Clark County School District course syllabus for Science 8 with supplements from the NV Science Content Standards. This semester course focuses on the physical science explanations that extend understandings developed in previous science courses. Teachers will use scientific processes, protocols, and tools, including inquiry, to build understanding of structures, patterns, and relationships explained through the physical sciences. Major topics include; Waves (Light and Sound), and Motion and Forces.
UNLV: Physical Science IA, SCI 630 D

RPDP MSSCP PHYSICAL SCIENCE FOR MS TEACHERS (SEM 2) (3 CREDITS)

This three-credit course will follow the second semester benchmark sequence for the currently adopted Clark County School District course syllabus for Science 8 with supplements from the NV Science Content Standards. This semester course is designed to provide teachers with practice in the use of scientific processes, including inquiry, to build understanding of structures, patterns, and relationships explained through the physical sciences. Activities and applications will provide the foundation for instruction in major topics including; Atomic Structure, Matter, Energy, and Waves. Technological applications and career opportunities will be provided as an integral part of instruction.
UNLV: Physical Science IB, SCI 630 E

RPDP MSSCP EARTH SCIENCE FOR MS TEACHERS (SEM 1) (3 CREDITS)

This three-credit course will follow the first semester benchmark sequence for the currently adopted Clark County School District course syllabus for Science 7 with supplements from the NV Science Content Standards. Teachers will use scientific processes, including inquiry, to build understanding of Earth's structure and place in the Solar System, atmospheric processes, and composition of matter. Critical thinking, collaboration, accuracy, and communication skills will be practiced as students extend their scientific literacy. Field and laboratory experiences are to be an integral part of the course. Major topics include; Plate Tectonics, Constructive and Destructive Forces, Rocks, Minerals, Fossils, and Soil.

UNLV: Earth Science IA, SCI 630 F

RPDP MSSCP EARTH SCIENCE FOR MS TEACHERS (SEM 2) (3 CREDITS)

This three-credit course will follow the second semester benchmark sequence for the currently adopted Clark County School District course syllabus for Science 7 with supplements from the NV Science Content Standards. This semester course is designed to provide teachers with general concepts of Earth, environmental, and space science through a hands-on, inquiry driven approach to research, experimentation and problem solving. The course will present fundamental concepts of ecology, geology, hydrology, meteorology, and astronomy, and their applications related to career opportunities. Environmental issues will also be addressed. Field and laboratory experiences are to be an integral part of the course. Major topics include; Atmosphere, Water Cycle, Meteorology, and Astronomy.

UNLV: Earth Science IB, SCI 630 G